

<b>Boralex Fort Fairfield, Inc.</b>	)	<b>Department</b>
<b>Aroostook County</b>	)	<b>Findings of Fact and Order</b>
<b>Fort Fairfield, Maine</b>	)	<b>Part 70 Air Emission License</b>
<b>A-181-70-A-I</b>	)	

After review of the Initial Part 70 License application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A, Section 344 and Section 590, the Department finds the following facts:

## **I. Registration**

### **A. Introduction**

FACILITY	Boralex Fort Fairfield, Inc. (Boralex)
LICENSE NUMBER	A-181-70-A-I
LICENSE TYPE	Initial Part 70 License
SIC CODES	4911-Electrical Generation
NATURE OF BUSINESS	Electric Generating Station
FACILITY LOCATION	P.O. Box 430 Cheney Grove Rd., Fort Fairfield
DATE OF LICENSE ISSUANCE	July 19, 2002
LICENSE EXPIRATION DATE	July 19, 2007

### **B. Emission Equipment**

The following emission units are addressed by this Part 70 License:

<b>EMISSION UNIT ID</b>	<b>UNIT CAPACITY</b>	<b>UNIT TYPE</b>
Boiler #1	523 MMBtu/hr (wood fired) 130 MMBtu/hr (oil start-up)	wood, 50% moisture #2 fuel oil, 0.5% sulfur
Boiler #2	4.3 MMBtu/hr	#2 fuel oil, 0.5% sulfur
Generator A	0.61 MMBtu/hr	diesel fire pump
Generator B	0.51 MMBtu/hr	diesel generator

Boralex also operates Boiler #3, a 0.28 MMBtu/hr waste oil space heater, which is listed for inventory purposes only.

Boralex has additional insignificant activities which do not need to be listed in the emission equipment table above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of Chapter 140 of the Department's Regulations.

C. Application Classification

The application for Boralex does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be an Initial Part 70 License issued under Chapter 140 of the Department's regulations for a Part 70 source.

## II. EMISSION UNIT DESCRIPTION

A. Process Description

Boralex is a 30 megawatt (net) electric generating facility located in Fort Fairfield, Maine. The plant consists of one generation unit, which is fired primarily with saw-mill residues and whole tree chips. No. 2 fuel oil is used during start-up, shutdown and emergency purposes only. There is also a smaller oil-fired auxiliary boiler, which provides building heat and auxiliary steam.

B. Boiler #1

Boiler #1 is a wood-fired 523 MMBtu/hr boiler with 130 MMBtu/hr oil-fired capacity, which powers a Mitsubishi turbine capable of producing approximately 33 gross megawatts of power. Number 2 fuel oil is used for start-up, shutdown and emergency back-up procedures only. Boiler #1 is subject to the New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam generating units constructed after June 19, 1984.

Boiler #1 is a Spanish designed steam generating unit which was intended for solid fuel, and installed by Cianbro Corporation. The boiler was commissioned for operation in November of 1987. Emissions exit through a 216.5 ft AGL stack, which represents greater than 60% of the GEP good engineering practice for stack height. Boralex operates an opacity monitor and Predictive Emission Monitoring System (PEMS) for NOx.

Particulate matter (PM, PM10) emissions from Boiler 1 shall be controlled by the operation and maintenance of a multiple centrifugal cyclone separator followed by an electrostatic precipitator (ESP).

Boralex shall operate, at a minimum, the number of ESP fields that operated during the most recent demonstration of compliance with its licensed particulate emission limits. Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, Boralex may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall Boralex be relieved of its obligation to meet its licensed emission limits.

The specific sections applicable to Boralex include the following:

- Part 60.8
- Part 60.42b, Section (j)
- Part 60.43b, Sections (c)(1), (e), (f), and (g)
- Part 60.44b, Section (c)
- Part 60.45b, Section (j)
- Part 60.46b, Section (a), (b), (c) and (d)
- Part 60.47b, Section (f)
- Part 60.48b, Sections (a) and (e)(1)
- Part 60.49b, Sections (a), (b), (d), (f), (h)(1), (h)(3), (m), (o) and (r)

### **Streamlining**

1. 40 CFR Part 60.43b (c)(1), (f), (g) and MEDEP Chapter 103 regulate particulate matter (PM) emission limits. However, Best Practical Treatment (BPT) is more stringent.
2. MEDEP Chapter 101 is applicable for visible emissions, however, 40 CFR Part 60.43b (f) is more stringent.
3. 40 CFR Part 60 and Chapter 117 require the use of Continuous Opacity Monitors (COM). However, Chapter 117 is at least as stringent as 40 CFR Part 60.
4. MEDEP Chapter 106 regulates fuel sulfur content, however BPT is more stringent.
5. 40 CFR Part 60.42(b)(a) requires percent reductions, except as provided in 40 CFR Part 60.42(b)(j), which shall be applied.
6. PEMS performance shall be restricted by Boralex's PEMS operating procedures manual, as approved by the Department, until such time as regulations are set forth by the Department.

### **Periodic Monitoring**

Stack testing for particulate matter emission rates once every two years.

Particulate matter (PM, PM10) emissions from Boiler 1 shall be controlled by the operation and maintenance of a multiple centrifugal cyclone separator followed by an electrostatic precipitator (ESP).

Data for the following points in the ESP shall be recorded once per shift during operation:

- 1) Primary and secondary voltages on each field
- 2) Primary and secondary current on each field  
[MEDEP Chapter 140, BPT]

Boralex shall maintain fuel use records including the sulfur content of the fuel oil and the number of gallons fired.

Boralex shall maintain a preventative maintenance log including all maintenance and modifications done to Boiler #1.

Documentation that all PEMs are continuously accurate, reliable and operated in accordance with PEM operating procedures, as approved by the Department.

VOC monitoring shall consist of a stack test to determine primary compliance.

C. Boiler #2

Boiler #2 is a Unilux model 700 LS, five pass water tube boiler, and was installed in April of 1988. The boiler provides building heat during spring and fall maintenance outages. Boiler #2 has a design heat input capacity of 7.0 MMBtu/hr, and combusts #2 fuel oil, with a maximum sulfur content of 0.5% by weight.

Due to frequency of cycling, the original 50 gph fuel oil nozzle was replaced with three 30° fuel oil nozzles rated at 10 gph each. This modification resulted in a net heat input reduction to 4.3 MMBtu/hr. Boiler #2 is not subject to New Source Performance Standards (NSPS) Subpart Dc, which is applicable to boilers with a heat input of 10 MMBtu/hr or greater, and manufactured after June 9, 1989.

Regulated pollutants emitted from boiler #2 include PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC. Emissions exit the boiler through stack #2, which has an inside diameter of 18" and a vertical height of 120 feet.

**Streamlining**

1. Chapter 106 regulates fuel sulfur content, however, the BPT sulfur limit is more stringent.
2. Chapter 101 is applicable for visible emissions, however the BPT opacity limit is more stringent.

**Periodic Monitoring**

Periodic monitoring shall consist of record keeping, which includes records of fuel use through purchase receipts indicating amount (gallons) and percent sulfur by weight, as well as records of hours operated. Records shall be maintained on a monthly basis, in addition to a 12-month rolling total.

Boralex shall clean the oil guns once per year and keep a maintenance log for Boiler #2. The log shall include any work performed on the boiler as well as oil gun cleaning frequencies.

Based on the type of fuel and operating in a manner consistent with good air pollution control practices, it is unlikely the boiler will exceed the opacity limit. Therefore, periodic monitoring by the source for opacity in the form of visible emission testing is not required. However, neither the EPA nor the state is precluded from performing its own testing and may take enforcement action for any violations discovered.

**D. Miscellaneous Emission Units**

The miscellaneous emission units are a 0.61 MMBtu/hr diesel fire pump and a 0.51 MMBtu/hr diesel generator.

**Streamlining**

1. Chapter 106 regulates fuel use content, however the BPT sulfur limit is more stringent.
2. Chapter 101 is applicable for visible emissions, however the BPT opacity limit is more stringent.

**Periodic monitoring**

Periodic monitoring shall consist of record keeping which includes records of fuel use through purchase receipts indicating amount (gallons) and percent sulfur by weight (documented through supplier fuel receipts) for both the diesel generator and diesel fire pump.

Based on the type and amount of fuel for which the diesel was designed, a properly maintained and operated diesel unit should not exceed opacity limits. Therefore, periodic monitoring by the source for opacity in the form of visible emission testing in accordance with 40 CFR Part 60, Appendix A, Method 9 is not required. However, neither the EPA nor the DEP is precluded from performing its own testing and may take enforcement action for any violations discovered.

**E. Facility Emissions**

The following total licensed annual emissions for the facility are based on the following limitations. All usages are based on a 12-month rolling total.

- Wood use in Boiler #1 shall be limited to 512,000 tons per year (4,500 Btu/lb, 50% moisture).
- Boralex may burn in Boiler #1 up to 3.3 million gal/year of #2 fuel oil with a sulfur content not to exceed 0.5% by weight, up to 10,000 gallons of which may substituted with off-specification or specification oil waste.

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- Fuel oil use in Boiler #2 shall not exceed 150,000 gallons per year of #2 fuel oil with a maximum sulfur content of 0.5% by weight.
- Boralex may burn a maximum of 10,000 gallons per year of waste oil, with only specification waste oil being combusted in the waste oil space heater, and off-specification and specification waste oil being combusted in Boiler #1.
- Fuel use in the diesel fire pump shall be limited to 2,500 gal/year of diesel fuel with a sulfur content not to exceed 0.05%.
- Fuel use in the diesel generator shall be limited to 2,000 gal/year of diesel fuel with a sulfur content not to exceed 0.05%.

**Total Allowable Annual Emissions for the Facility**  
(used to calculate the license fee)

<b>Pollutant</b>	<b>Tons/Year</b>
PM	93.9
PM <sub>10</sub>	93.9
SO <sub>2</sub>	28.3
NO <sub>x</sub>	690.1
CO	1031.7
VOC	4.6

**III. AIR QUALITY ANALYSIS**

An ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards was performed for License # A-181-72-F-A/R, and can be found in that order. An additional ambient air quality analysis is not required for this Initial Part 70 License.

**ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-181-70-A-I pursuant to MEDEP Chapter 140 and the preconstruction permitting requirements of MEDEP Chapter 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to Boralex pursuant to the Department's preconstruction permitting requirements in Chapters 108 or 115 have been incorporated into this Part 70 license,

except for such conditions that MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in Chapter 115 for making such changes and pursuant to the applicable requirements in Chapter 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only.**

### **Standard Statements**

- (1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both;
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege;
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable.
- (4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license;
- (5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

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- (a) Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
- (b) The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or effect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated October, 1999.

SOURCE	CITATION	REQUIREMENT DESCRIPTION	BASIS FOR DETERMINATION
Boiler #1	40 CFR Part 60.44b(c)	There is no NO <sub>x</sub> limit if the affected facility has an annual capacity factor less than 10% for oil firing in combination with firing wood.	Boiler #1 has an annual capacity factor less than 10% for waste oil firing.
Diesel Fire Pump	Chapter 103, Section 2(B)(4)(c)	Particulate emission limit for fuel burning equipment >3.0 MMBtu/hr.	Not applicable, unit is <3.0 MMBtu/hr.
Diesel Generator	Chapter 103, Section 2(B)(4)(c)	Particulate emission limit for fuel burning equipment >3.0 MMBtu/hr.	Not applicable, unit is <3.0 MMBtu/hr.

- (7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
  - (a) Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to Chapter 140;



- (b) Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;
- (c) The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
- (d) The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

- (8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license.

#### **Standard Conditions**

- (9) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (Title 38 MRSA §347-C);
- (10) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140;
- (11) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request;  
**Enforceable by State-only**
- (12) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.

- (13) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions;  
**Enforceable by State-only**
- (14) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license;
- (15) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license.
- (16) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- (a) perform stack testing under circumstances representative of the facility's normal process and operating conditions:
    - (i) within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;
    - (ii) to demonstrate compliance with the applicable emission standards; or
    - (iii) pursuant to any other requirement of this license to perform stack testing.
  - (b) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - (c) submit a written report to the Department within thirty (30) days from date of test completion. **Enforceable by State-only**

(17) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

- (a) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
- (b) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
- (c) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

**Enforceable by State-only**

(18) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

- a. The licensee shall notify the Commissioner within 48 hours of a violation in emission standards and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;
- b. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 MRSA § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has

taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

- c. All other deviations shall be reported to the Department in the facility's semiannual report.
- (19) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.
- (20) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official.
- (21) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:
  - (a) The identification of each term or condition of the Part 70 license that is the basis of the certification;
  - (b) The compliance status;
  - (c) Whether compliance was continuous or intermittent;
  - (d) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
  - (e) Such other facts as the Department may require to determine the compliance status of the source;

#### **SPECIAL CONDITIONS**

- (22) Boiler #1
  - A. Boiler #1 steam production, while burning wood, shall be restricted to 374,000 pounds steam per hour at 1500 psig. Boralex shall continuously monitor and record steam flow rate and steam temperature for Boiler #1.

Note: "continuously" is defined as: 3 points in a one hour period, with no more than 2 points in any one half-hour period.

The parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the source-operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

[MEDEP Chapter 140, BPT] **Enforceable by State Only**

- B. Boiler #1 shall not exceed 512,000 tons of wood burned per year (4,500 Btu/lb, 50% moisture by weight), based on a 12-month rolling total.

[MEDEP Chapter 140, BPT] **Enforceable by State Only**

- C. The sulfur content of the fuel oil fired in Boiler #1 shall not exceed 0.5% by weight demonstrated by purchase records from the supplier.

[MEDEP Chapter 140, BPT]

- D. Boralex may burn in Boiler #1 up to 3.3 million gal/year of #2 fuel oil with a sulfur content not to exceed 0.5% by weight, up to 10,000 gallons of which may substituted with off-specification or specification oil waste. This annual fuel use requirement ensures Boralex meets the <10% capacity factor for oil.

Only waste oil meeting the criteria “specification” or “off-specification” waste oil (as defined in the “Waste Oil Management Rules”) shall be burned in Boiler #1.

Fuel flow monitors shall be operated and maintained to demonstrate compliance. Fuel oil sulfur content shall be determined using receipts indicating the percent sulfur by weight or fuel oil analysis.

A log shall be maintained recording the quantities of specification and off-specification waste oil burned in Boiler #1 and shall be made available to the Department upon request.

[MEDEP Chapter 140, BPT] **Enforceable by State Only**

- E. Emissions from Boiler #1 shall not exceed the following limits when firing wood and oil:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>Origin and Authority</u>
PM	0.04	MEDEP Chapter 140, BPT
PM <sub>10</sub>	0.04	MEDEP Chapter 140, BPT
NO <sub>x</sub>	0.30	MEDEP Chapter 140, BPT

<u>Pollutant</u>	<u>lb/hour</u>	<u>Origin and Authority</u>
PM	20.9	MEDEP Chapter 140, BPT
PM <sub>10</sub>	20.9	MEDEP Chapter 140, BPT
SO <sub>2</sub>	56.4	MEDEP Chapter 140, BPT
NO <sub>x</sub>	156.9	MEDEP Chapter 140, BPT
CO	235.4	MEDEP Chapter 140, BPT
VOC	1.0	MEDEP Chapter 140, BPT

NO<sub>x</sub>: The 0.30 lb/MMBtu limit is based on a 24-hour daily block average, via PEM. A 24-hour block average basis shall be defined as midnight to midnight. Boralex shall maintain the NO<sub>x</sub> PEMS in accordance with EPA's draft performance specifications, titled Example Specifications and Test Procedures for Predictive Emission Monitoring Systems, until such time as MEDEP Chapter 117 includes performance specifications and test procedures for PEM systems. At such time, Boralex shall operate the NO<sub>x</sub> PEMS in accordance with MEDEP Chapter 117.  
[MEDEP Chapter 140, BPT]

CO: Boralex shall stack test once each year no later than July 31<sup>st</sup>, to determine compliance with their CO license limit for lb/hr and lb/MMBtu.  
[MEDEP Chapter 140, BPT]

- F. Particulate matter (PM, PM<sub>10</sub>) emissions from Boiler #1 shall be controlled by the operation and maintenance of a multiple centrifugal cyclone separator followed by an electrostatic precipitator (ESP).

Boralex shall operate, at a minimum, the number of ESP fields that operated during the most recent demonstration of compliance with its licensed particulate emission limits. Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, Boralex may perform additional particulate emission testing to demonstrate compliance with alternative operating scenarios, but under no circumstances shall Boralex be relieved of its obligation to meet its licensed emission limits.

Data for the following points in the ESP shall be recorded once per shift during operation:

- 1) Primary and secondary voltages on each field
  - 2) Primary and secondary current on each field
- [MEDEP Chapter 140, BPT]

Upon written notification to the Department, and in accordance with the Bureau of Air Quality's Air Emission Compliance Test Protocol, Boralex may perform additional particulate emission testing to demonstrate compliance with alternative scenarios, but under no circumstances shall Boralex be relieved of its obligation to meet its licensed emission limits.

- G. Boralex shall operate the boiler such that the visible emissions from the stack does not exceed 20% opacity on a six (6) minute block average basis, except for one six-minute period per hour of not more than 27% opacity.  
[MEDEP Chapter 140, BPT]
- H. Compliance with the opacity limit shall be demonstrated by means of a continuous opacity monitoring system (COM). The COM shall be installed and certified on the breaching of the ESP to the stack or in the stack. Boralex shall maintain the COM in accordance with Chapter 117.  
[MEDEP Chapter 140, BPT]
- I. Handling of reclamation wood chips (stockpiles) shall be controlled to eliminate visible emission in excess of 5% opacity on a three (3) minute block average basis.  
[MEDEP Chapter 140, BPT]
- J. Emissions from Boiler #1 shall vent to Stack #1, which shall be at least 216.5 feet AGL.  
[MEDEP Chapter 140, BPT] **Enforceable by State Only**
- K. Boiler #1 is subject to 40 CFR Part 60 Subparts A and Db and Boralex shall comply with the notification and record keeping requirements of 40 CFR Part 60.7.

40 CFR Part 60 Subpart Db requires maintaining records of the amount of fuel combusted each day and calculation of annual capacity factor for each calendar quarter. Boralex will be required to maintain monthly fuel use records and determine an annual capacity factor on a 12-month rolling average basis with the new annual capacity calculated at the end of each month, and submitted annually.

- L. Ash from Boiler #1 grate and fly ash shall be disposed of in accordance with the Bureau of Remediation and Waste Management (BRWM). Ash shall be sufficiently conditioned with water or transported in covered containers so as to prevent fugitive emissions.
- (23) Boiler #2
- A. Boralex is licensed to operate Boiler #2 (4.3 MMBtu/hr) which is licensed to fire #2 fuel oil. [MEDEP Chapter 140, BPT]
- B. Emissions from the boiler shall not exceed the following limits:

<i>Pollutant</i>	<i>lb/MMBtu</i>	<i>Origin and Authority</i>
PM	0.12	MEDEP, Chapter 103, Section 2(B)(1)(a)
PM <sub>10</sub>	0.12	MEDEP Chapter 140, BPT
NO <sub>x</sub>	0.14	MEDEP Chapter 140, BPT

<i>Pollutant</i>	<i>lb/hr</i>	<i>Origin and Authority</i>
PM	0.52	MEDEP Chapter 140, BPT
PM <sub>10</sub>	0.52	MEDEP Chapter 140, BPT
SO <sub>2</sub>	2.2	MEDEP Chapter 140, BPT
NO <sub>x</sub>	0.61	MEDEP Chapter 140, BPT
CO	0.15	MEDEP Chapter 140, BPT
VOC	0.01	MEDEP Chapter 140, BPT

- C. Boralex shall operate the boiler such that the visible emissions from the stack does not exceed 20% opacity on a six (6) minute block average basis, for more than two (2) six (6) minute block averages in a 3-hour period. [MEDEP Chapter 140, BPT]
- D. Boralex shall maintain records of annual #2 fuel use indicating the quantity of fuel consumed (gallons, the percent (%) sulfur content of the fuel by weight, and the heat content of the fuel, demonstrated by purchase records from the supplier). [MEDEP Chapter 140, BPT]
- E. Boralex shall not exceed an annual fuel cap of 150,000 gallons per year of #2 fuel oil with a sulfur content not to exceed 0.5% by weight (12-month rolling total) demonstrated by fuel gauges on the fuel tank. [MEDEP Chapter 140, BPT] **Enforceable by State-only**
- F. Emissions from Boiler #2 shall vent to Stack #2, which shall be at least 120 feet AGL.



- (24) Miscellaneous Emission Units
- A. The Diesel Fire Pump shall not exceed a heat input rate of 0.61 MMBtu/hr of diesel fuel, and the Diesel Generator shall not exceed a heat input rate of 0.51 MMBtu/hr of diesel fuel.  
[MEDEP Chapter 140, BPT] **Enforceable by State-only**
  - B. The sulfur content of the diesel fuel used in the Diesel Fire Pump and Diesel Generator shall not exceed 0.05% sulfur by weight. Fuel oil logs shall be kept which includes records of hours of operation and fuel use through purchase receipts indicating gallons and percent sulfur by weight.  
[MEDEP Chapter 140, BPT]
  - C. Diesel Fire Pump and Diesel Generator shall each not operate more than 500 hours (15,000 gallons of fuel oil fired) each of operation per year. Hours of operation and fuel use records for Diesel Fire Pump and Diesel Generator shall be kept through purchase receipts indicating gallons and percent sulfur by weight.  
[MEDEP Chapter 140, BPT]
  - D. Visible emissions from each unit shall not exceed 20% opacity on a six-minute block average basis, except for two six-minute block averages in a three-hour period.  
[MEDEP Chapter 140, BPT]
- (24) A log for Boilers #1 and #2, and the Diesel Fire Pump and Diesel Generator shall be maintained showing preventative maintenance actions being performed.  
[MEDEP Chapter 140, BPT] **Federally Enforceable for Boilers #1 and #2, Remaining Units are Enforceable by State-only**
- (26) General Process Sources  
All wood conveyors and transfer points shall be covered or enclosed. Visible emissions from any general process source (including chippers) shall not exceed an opacity of 20% on a six-minute block average basis, except for no more than one six-minute block average in a one hour period.  
[MEDEP Chapter 140, BPT]
- (27) Boralex shall notify the regional Air Bureau inspector and Air Bureau Licensing section of any fuel pile fires by the next business day.
- (28) PEMS  
The PEMS required by this license shall be the primary means of demonstrating compliance with NO<sub>x</sub> lb/MMBtu emission standards set by this Order. Boralex shall meet the standards proposed in EPA's draft performance specifications, titled Example Specifications and Test Procedures for Predictive Emission

Monitoring Systems, until such time as MEDEP Chapter 117 includes performance specifications and test procedures for PEMS. At such time, Boralex shall operate the NO<sub>x</sub> PEMS in accordance with MEDEP Chapter 117.

#### **Quarterly Reporting**

The licensee shall submit a Quarterly Report to the Bureau of Air Quality within 30 days after the end of each calendar quarter, detailing the following, for the control equipment, parameter monitors, Predictive Emission Monitoring Systems (PEMS) or Continuous Opacity Monitoring Systems (COMS) required by this license. [MEDEP Chapter 117]

1. All control equipment downtimes and malfunctions;
  2. All PEMS or COMS downtimes and malfunctions;
  3. All parameter monitor downtimes and malfunctions;
  4. All excess events of emission and operational limitations set by this Order, Statute, state or federal regulations, as appropriate. The following information shall be reported for each excess event;
    - a. Standard exceeded;
    - b. Date, time, and duration of excess event;
    - c. Maximum and average values of the excess event, reported in the units of the applicable standard, and copies of pertinent strip charts and printouts when requested;
    - d. A description of what caused the excess event;
    - e. The strategy employed to minimize the excess event; and
    - f. The strategy employed to prevent reoccurrence.
  5. A report certifying there were no excess emissions, if that is the case.
- (29) Only valid emissions data from a PEMS is used to demonstrate compliance with the applicable emission limits. Emissions data will be considered invalid if any of the following conditions occur:
- A. The PEMS is not operated in accordance with the quality assurance criteria in the December 15<sup>th</sup>, 1997 Pavilion Technologies Site Guide and subsequent amendments.
  - B. The sensor validation system is inoperable.
  - C. The sensor validation system determines that more than four sensor failures have occurred (a compliance validation alarm) for more than 29 consecutive minutes.
  - D. The daily model integrity check (patterns file data check) provides incorrect results. Data is considered invalid until the next acceptable model integrity check.

- E. The daily model integrity check is not conducted. Data for the following day is considered invalid until a successful model integrity check is performed.
- F. The PEMS fails a relative accuracy test. Data is considered invalid from the time results of the failed test are received by the company until the commencement of the next acceptable relative accuracy test.
- G. A relative accuracy test is not conducted during a calendar year. Data for the following calendar year is considered invalid until a successful relative accuracy test is initiated.
- (29) **Semiannual Reporting**  
The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The semiannual reports are due with every other quarterly report, and the initial semiannual report is due July 31, 2002 with the second quarterly report submitted following the date of signature of this license.
- A. Each semiannual report shall include a summary of the periodic monitoring required by this license.
- B. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.  
[MEDEP Chapter 140]
- (30) **Annual Compliance Certification**  
The licensee shall submit an annual compliance certification to the Department and EPA in accordance with Condition (20) of this license. The initial annual compliance certification is due January 31, 2003 with the submittal of the second semiannual report after the signature date of this license. [MEDEP Chapter 140]
- (31) **A. Annual Emission Statement**  
In accordance with MEDEP Chapter 137, the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:
- 1) A computer program and accompanying instructions supplied by the Department;  
or
  - 2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

**Boralex Fort Fairfield, Inc.** ) **Department**  
**Aroostook County** ) **Findings of Fact and Order**  
**Fort Fairfield, Maine** ) **Part 70 Air Emission License**  
**A-181-70-A-I** 20

Attn: Criteria Emission Inventory Coordinator  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by September 1.

- (32) The licensee is subject to all applicable requirements of 40 CFR Part 82, Subpart F (Refrigerant Control).
- (33) The licensee is subject to the State regulations listed below.

<u>Origin and Authority</u>	<u>Requirement Summary</u>
Chapter 102	Open Burning
Chapter 109	Emergency Episode Regulation
Chapter 110	Ambient Air Quality Standard
Chapter 116	Prohibited Dispersion Techniques

- (34) **Certification by a Responsible Official**  
All reports (including quarterly reports, semiannual reports, and annual compliance certifications) required by this license to be submitted to the Bureau of Air Quality must be signed by a responsible official. [MEDEP Chapter 140]
- (35) The term of this license shall be five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS      DAY OF      2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
MARTHA G. KIRKPATRICK, COMMISSIONER  
PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: October 19, 1999

Date of application acceptance: October 28, 1999

Date filed with the Board of Environmental Protection \_\_\_\_\_

This Order prepared by Elisha McVay, Bureau of Air Quality.